

Att'y Dkt. No. 0317-0001U.S. App. No: 09/923,319

1. (Amended) An apparatus for generating electrical energy comprising:
an elongated conduit having a central bore adapted to receive a magnetic element for passage therethrough;
a plurality of wire coils wound about said conduit and spaced along the length thereof;
a magnetic element sized to pass through said bore; and
means to propel said magnetic element through said bore;
wherein said conduit is curved so as to describe a circle having sufficient diameter to permit said magnetic element to freely traverse said bore, said conduit having a gas inlet and a gas outlet and said magnetic element being confined therein;
whereby passage of said magnetic element through said bore induces an electrical current in said coils.
10. (Amended) The apparatus of claim 1, further comprising means to inject a propellant gas into said conduit through said gas inlet, said propellant gas being pressurized whereby said magnetic element is propelled within said conduit.
11. (Amended) The apparatus of claim 1, further comprising:
a combustion chamber connected to said conduit through said gas inlet;
a supply of combustible propellant;
means to charge a quantity of said propellant into said combustion chamber; and
means to ignite said propellant;
whereby combustion gas is directed through said gas inlet into said conduit whereby said magnetic element is propelled within said conduit.
12. A method of generating electricity from high pressure combustion gases comprising:
providing a plurality of field coils in substantially circular arrangement on a barrel having a central bore therethrough;
providing a magnetic armature sized to pass through said bore;
providing a means to propel said armature through said bore comprising a ballistic propellant capable of generating high pressure combustion gases directed against said armature in a direction corresponding to said circular arrangement of said field coils; and

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propelling said magnetic armature through said bore whereby the magnetic field of said armature passing across said field coils induces electrical current in said coils.

13. (Amended) A method in accordance with Claim 12, wherein propelling a magnetic armature comprises propelling a magnetic pellet.

15. (Amended) The method of claim 12, wherein said combustion gases are obtained from a charge of explosive propellant.

16. (Amended) The method of claim 15 wherein said propellant comprises an ignitable powder, liquid, or gas.